

**SOUTHWEST JORDAN VALLEY GROUND WATER CLEANUP PROJECT
STATE OF UTAH NATURAL RESOURCE DAMAGE TRUSTEE**

**COMMENT RESPONSE SUMMARY
AUGUST 31, 2004**

Introduction to the Comment Response Summary

Project Summary

This project is designed to clean up groundwater contaminated from historic mining activities in the Oquirrh Mountains in southwest Salt Lake County. Over the next 40 years, extraction and treatment of groundwater from the contaminated zones will remove contaminants and provide municipal-quality drinking water for the benefit of the public in the Affected Area. By removing contaminated water from the underlying aquifer, the project will also improve groundwater quality and prevent further migration of the contamination in the valley.

In 1986, the State of Utah filed a Natural Resource Damage Claim against Kennecott Utah Copper Corporation (Kennecott) for groundwater damage in the southwest Jordan Valley area. In 1995, the Court accepted a settlement agreement between the State of Utah, Kennecott, and Salt Lake Water Conservancy District, now the Jordan Valley Water Conservancy District (JVWCD), and issued a Consent Decree. The Executive Director of the Utah Department of Environmental Quality (DEQ) is the Trustee and has the responsibility for approving the plan and releasing Trust Funds for the cleanup. A Joint Proposal for cleanup of the contamination and provision of municipal quality drinking water to the public in the Affected Area was presented to the Trustee by JVWCD and Kennecott. The joint Proposal was later reviewed and resubmitted to the Trustee. The Consent Decree requires that Kennecott provide municipal-quality drinking water through a purveyor of M&I water. The District has agreed to work with Kennecott to distribute the water to the public in accordance with the Consent Decree.

Over the next 40 years, contaminated groundwater will be withdrawn from the principal aquifer and treated to provide municipal-quality drinking water to the public in the Affected Area. The project will also improve groundwater quality and prevent migration of contamination. The project is divided into two zones.

The Zone A plume contains two types of contamination. The core is highly acidic and contains high levels of sulfate and heavy metals (Figure 1 - red area). Extraction from the acid core of the Zone A plume will continue as part of the CERCLA remediation project. This water is not treated for drinking water but is reused in Kennecott's operations. The larger but less contaminated portion is impacted by sulfate (Figure 1 - orange, green, and blue areas). The water extracted from the sulfate-contaminated portion of the Zone A and Zone B plume will be treated by reverse osmosis (RO). Two products will result from this process. One, municipal quality drinking water, will be delivered to the District to make it available to the public in the Affected Area. The other, waste concentrate from RO treatment, will be transported through the Kennecott Tailings Pipeline to the Kennecott Tailings Impoundment. This plume's primary source was the historic Bingham Reservoir. Other sources included the uncontrolled release of water from the historic waste rock dumps on the eastern edge of the Oquirrh Mountains and other mining and non-mining activities.

The Zone B plume contains moderate levels of sulfate (Figure 1 - green and blue areas). Its primary source was the historic South Jordan Evaporation Ponds. The District will extract water from seven wells, pumping contaminated water from the deep (principal) aquifer with an extraction rate of 4300 – 4867 acre-feet per year (AFY). Five of the wells will be located in the area of 1300 West from approximately 90th to 114th South and two will be located in the area of 2700 West from approximately 100th to 110th South. Up to four wells will be developed to remove shallow groundwater. These wells will be located west of the Jordan River between approximately 7800 South and 8100 South and will extract a total of 750 –1400 AFY. The revised Joint Proposal provides three options for producing municipal-quality drinking water and managing RO concentrates from Zone B/Lost Use operations. The water extracted from Zone B will be piped to the Zone B RO treatment facility, located next to the District headquarters near 8200 South 1300 West in West Jordan.

Under the Integrated and Minimum Integrated Designs, water pulled from the shallow aquifer will not be processed using reverse osmosis. It will be sent to the District's treatment facility to be disinfected and filtered to remove any contaminants. It will then be blended with treated water from the deep aquifer, producing municipal-quality drinking water for the public in the Affected Area. RO concentrates will be sent to Kennecott's Tailings Impoundment via a pipeline constructed by the District. The pipeline will travel north along a corridor at roughly 1300 West from the treatment facility to 1300 South. There, it will continue northwest to the impoundment area.

Under the Separate Design, both Zone B contaminated water from the principal aquifer and water from the shallow aquifer will be treated using reverse osmosis. A decision to proceed with this option is dependent on the Great Salt Lake selenium studies concluding that this is an option that will not cause degradation to the Great Salt Lake and its surrounding environment.

The District has withdrawn its earlier permit to discharge waste concentrate from RO treatment to the Jordan River. Instead, the RO concentrates will be managed under one of the above-discussed treatment options.

The District has proposed working with agencies and interested parties to conduct a two-year scientific study on selenium in the Great Salt Lake. In coordination with local, state and federal agencies and stakeholders, the DEQ Division of Water Quality is initiating a program to establish a numeric selenium standard for the Great Salt Lake. Discharges to the Lake are subject to regulation and permit. Currently, standards exist for tributaries and are established on a case-by-case basis for the Lake.

As a direct result of public comment, DEQ established a Stakeholder Forum. This group is comprised of representatives of communities, interest groups, and agencies affected by the groundwater cleanup project and other remediation work underway by Kennecott. The Stakeholder Forum provided feedback to the District on alternatives for managing wastes from the Zone B/Lost Use treatment. It will continue to serve as a forum for review and discussion of various aspects of Kennecott's remediation programs under EPA and DEQ oversight.

Description of Comment Response Summary

This document contains responses to the public comments that were received by the Trustee on the Joint Proposal and implementing agreements between September 2, 2003 and August 2, 2004. On September 2, 2003 the Trustee commenced a public comment period on the Joint Proposal. The proposal was described in a Utah Department of Environmental Quality (DEQ) fact sheet and information was posted on the DEQ website. The Joint Proposal and supporting legal and

technical documents were made available for public review and comment. The Trustee hosted two public hearings, one on September 10, 2003 at the West Jordan City Hall and the second on September 25, 2003 at the DEQ offices. Public comments from those hearings were transcribed and are reproduced in this document, together with responses from the Trustee. The period for written comments concluded on November 21, 2003. Written comments (letters and emails) received through midnight of November 21, 2003, are also reproduced in this document, together with responses from the Trustee.

As a result of the public input received in the fall of 2003, the Joint Proposal and implementing agreements were revised. On June 18, 2004, the Trustee reopened the public comment period, inviting additional comments on the changes to the Joint Proposal and implementing agreements. The revised proposal, together with supporting legal and technical documents, was made available for public review. A public hearing was held on July 14, 2004, to gather public input on the revisions to the Joint Proposal and implementing agreements. The period for written comments concluded at midnight on August 2, 2004. Again, comments received at the public hearing as well as written comments received by the Trustee are reproduced in this document together with responses from the Trustee. Transcripts of the public hearings, printed copies of email comments and the original copies of all written comments are available at the DEQ office located at 168 North 1950 West, Salt Lake City, Utah, 84114.

Written comments and transcriptions of individual public hearing comments were received from individuals, groups and government entities. Many of the comments were similar, or raised the same questions or concern. Responses to those common comments are provided in the first section of this Comment Response Summary and referenced in individual comment documents. Other responses are included with the individual comment document. Thus, by reviewing the initial sections of this document, the public can review the common issues and the Trustee's responses. In the next section of the document, all of the comments that were received during the comment period are reproduced. The comments are reproduced in chronological order by date of receipt by DEQ.